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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,705	10/27/2005	Hiroyasu Taguchi	Q75540	9228
23373 7590 09/28/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER BASTIANELLI, JOHN	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 09/28/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/554,705

Applicant(s)

TAGUCHI ET AL

Examiner

John Bastianelli

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/003)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5, 7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuzawa et al. US 5,755,261.

Fukuzawa discloses an apparatus which is fully capable of handling high purity ammonia gas as the fluid valved having a sealing part 6, which comprise a halogen-free resin a polyphenylene sulfide (PPS) resin (seen to be halogen free as it is not mentioned to include halogens) and the sealing part comprises a sealing part body and an abutting material 11 capable of imparting sealing property by abutting against said sealing part body, and at least the abutting part against the sealing part body of said abutting material comprises a ceramic selected from the group consisting of alumina. PPS inherently has a Rockwell hardness of R30 to R150. The apparatus is seen to be a cylinder valve (it is contained in a cylinder, a flow controller (valve controls fluid) and is seen to be a line valve. Regarding claim 10, the independent claim 1 is an apparatus claim and since claim 10 is a method is not carried to carry substantial patentable weight as the device is capable of functioning as feeding a high-purity ammonia gas without deteriorating the gas purity.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-5, 7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa et al. US 5,755,261 in view of Kimura et al. US 20030162870.

Fukuzawa lacks specifically mentioning that the PPS resin is halogen-free. Kimura teaches resins including PPS are to be halogen-free for environmental conservation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the PPS resin of Fukuzawa halogen-free as disclosed by Kimura in order to protect the environment.

5. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa et al. US 5,755,261 in view of Borland US 5,474,105.

Fukuzawa lacks a separate cylinder valve, pressure regulator, flow controller, line filter, and line valve. Borland discloses a separate cylinder valve 60 or 40, pressure regulator 40, flow controller 60 or 40, line filter 34, and line valve 60 or 40. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a separate cylinder valve, pressure regulator, flow controller, line filter, and line valve as disclosed by Borland in the apparatus of Fukuzawa in order to more accurately control and clean the fluid.

6. Claims 1-2 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borland et al. US 5,474,104 in view of Kimura et al. US 20030162870.

Borland discloses an apparatus having a sealing part and/or a gas contacting part 66 or 42, which has a resin and a sealing part, which comprises a sealing part body 66 or 42 and an abutting material 70 or 54 capable of imparting sealing property by abutting against said sealing part body, wherein said sealing part body has a resin, and at least the abutting part against the sealing part body of said abutting material comprises a stainless steel. Borland lacks the resin being halogen-free. Kimura discloses a halogen-free resin made of PPS or phenol. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the material of Borland out of halogen-free resin of PPS or phenol as disclosed by Kimura in order to protect the environment. Halogen-free resins of PPS or phenol inherently have a Rockwell surface hardness of R30-R150, it has a cylinder valve 60 or 40, a pressure regulator 40, a flow controller 60 or 40, a line filter 34, and a line valve 60 or 40. The method is seen as practiced by the apparatus as it does not deteriorate the gas purity.

7. Claims 1-2 and 4-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Kimura et al. US 20030162870. Beaver discloses an apparatus having a sealing part and/or a gas contacting part 56, which has a halogen-free resin and a sealing part, which comprises a sealing part body 56 and an abutting material 22 capable of imparting sealing property by abutting against said sealing part body, wherein said sealing part body has a material, and at least the abutting part against the sealing part body of said abutting material comprises a

stainless steel, a cobalt alloy, a highly corrosion-resistant nickel alloy or a ceramic selected from the group consisting of alumina, aluminum nitride and silicon carbide (col. 3, line 66-col. 4, line 10). Beaver lacks the material made of halogen-free resin. Kimura discloses a halogen-free resin made. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the material of Beaver out of halogen-free resin as disclosed by Kimura in order to protect the environment. Halogen-free resins of PPS or phenol inherently have a Rockwell surface hardness of R30-R150. Beaver discloses a cylinder valve, a pressure regulator 40, a flow controller, and a line valve. The method is seen as practiced by the apparatus and is used to for flow of hazardous/corrosive materials which ammonia is.

8. Claim 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Kimura et al. US 20030162870 in view of Borland et al. US 5,474,104.

Beaver lacks a line filter. Borland discloses a line filter 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the line filter as disclosed by Borland in the valve of Beaver in order to remove contaminants from the fluid.

9. Claims 1-2, 4-5, 7, and 9-10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa et al. US 5,755,261 in view of Floh et al. US 2004/0045605.

Fukuzawa lacks ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to replace the fluid of Fukuzawa with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

10. Claims 1-2, 4-5, 7, and 9-10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa et al. US 5,755,261 in view of Kimura et al. US 20030162870 in view of Floh et al. US 2004/0045605.

Fukuzawa lacks ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the fluid of Fukuzawa with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

11. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa et al. US 5,755,261 in view of Borland US 5,474,105 in view of Floh et al. US 2004/0045605.

Fukuzawa lacks a separate cylinder valve, pressure regulator, flow controller, line filter, and line valve. Borland discloses a separate cylinder valve 60 or 40, pressure regulator 40, flow controller 60 or 40, line filter 34, and line valve 60 or 40. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a separate cylinder valve, pressure regulator, flow controller, line filter, and line valve as disclosed by Borland in the apparatus of Fukuzawa in order to more accurately control and clean the fluid.

12. Claims 1-2 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borland et al. US 5,474,104 in view of Kimura et al. US 20030162870 in view of Floh et al. US 2004/0045605.

Borland lacks ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the fluid of Borland with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

13. Claims 1-2 and 4-7 and 9-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Kimura et al. US 20030162870 in view of Floh et al. US 2004/0045605.

Beaver discloses flow of hazardous/corrosive fluids but lacks specifically ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the fluid of Beaver with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Kimura et al. US 20030162870 in view of Floh et al. US 2004/0045605 in view of Borland et al. US 5,474,104.

Beaver lacks a line filter. Borland discloses a line filter 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the line filter as disclosed by Borland in the valve of Beaver in order to remove contaminants from the fluid.

Response to Arguments

15. Applicant's arguments with respect to claims 1-2 and 4-10 have been considered but are moot in view of the new ground(s) of rejection.

16. Applicant's arguments filed September 22, 2009 have been fully considered but they are not persuasive. The applicant has amended the claims to merely read that the apparatus has an ammonia gas flow path. The examiner would like to note that the valves cited are perfectly capable of valving ammonia gas as the structure and material of the valve allows for it to do so and the examiner has also provided a reference, Floh, that states that it is known in the art to valve ammonia gas.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Bastianelli
Primary Examiner
Art Unit 3753

/John Bastianelli/
Primary Examiner, Art Unit 3753

Search Notes**Application/Control No.**

10/554,705

Examiner

John Bastianelli

**Applicant(s)/Patent under
Reexamination**

TAGUCHI ET AL.

Art Unit

3753

SEARCHED

Class	Subclass	Date	Examiner
251	368 318	9/26/2009	JB
137	375		

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
EAST with forward and backward citations performed (see printout)	9/26/2009	JB